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20-P-1299

Appeals Court

COMMONWEALTH vs. STEVEN R. BANKERT.

No. 20-P-1299.

Worcester. April 6, 2023. - August 14, 2023.

Present: Vuono, Rubin, & Englander, JJ.

Unlawful Use of Gas. Gas. Practice, Criminal, Instructions to jury, Presumptions and burden of proof, New trial. Evidence, Presumptions and burden of proof, Expert opinion. Witness, Expert. Constitutional Law, Burden of proof. Due Process of Law, Burden of proof.

Indictments found and returned in the Superior Court Department on July 25, 2013.

The cases were tried before Richard T. Tucker, J., and a motion for a new trial, filed on August 16, 2019, was heard by David Ricciardone, J.

Steven R. Bankert, pro se.
Gabriel T. Thornton, Assistant Attorney General, for the Commonwealth.

ENGLANDER, J. After a jury trial in the Superior Court, the defendant was convicted on ten indictments charging him with willful injury to or interference with a gas meter, G. L. c. 164, § 126, and six indictments charging him with larceny of

property valued at over \$250, G. L. c. 266, § 30. Both sets of convictions arose from the discovery of damaged gas meters at laundromats operated by the defendant; the Commonwealth's theory at trial was that the defendant had caused the damage to avoid paying for the full amount of gas that the laundromats used.

On appeal, the defendant primarily challenges a jury instruction that stated that if the Commonwealth proved that there was a damaged gas meter at the defendant's business (and the business had been receiving gas for thirty-one days or more), this constituted "prima facie evidence" that the business had created the damage, with the intent to defraud. The defendant argues that the instruction violated his due process rights by altering the Commonwealth's burden of proving each element of the crime. Although a portion of the judge's prima facie evidence instruction was taken directly from G. L. c. 164, § 126, the judge went on to instruct the jury that they "must consider th[e] conclusion that the business created the existing condition," but that they were "not bound by that conclusion" "if believable evidence to the contrary ha[d] been introduced."

We agree that the instruction given here, in toto, impermissibly shifted the burden of proof as to essential and contested elements of the crime. A reasonable jury could have understood the instruction as requiring them to conclude, upon proof that the gas meters had been damaged, that the defendant's

business (under the circumstances, the defendant)¹ (1) caused the damage (2) with the requisite intent, unless the defendant presented "believable" contrary evidence. Although other portions of the charge correctly instructed the jury on the Commonwealth's burden of proof and also emphasized that the defendant was presumed innocent, under the governing case law those additional instructions cannot be found to have sufficiently neutralized the error. Furthermore, although the Commonwealth's evidence was strong, we cannot conclude that the error was harmless beyond a reasonable doubt; the pivotal issue at trial was whether the damage was caused by the defendant, or some other natural or unnatural cause, and the instruction told the jury to "conclude" that the defendant had caused it. Although this mandatory presumption was rebuttable by "believable evidence to the contrary," we cannot say that the shifting of the burden of proof did not play a role in the jury's verdicts.

The defendant also contends that the Commonwealth's lay witnesses offered improper expert opinion testimony. Because

¹ Under the circumstances, the statutory presumption that the "business" created the damage was equivalent to a presumption that the defendant created the damage, as there was no evidence or argument regarding other persons involved with the laundromats.

these evidentiary issues could well arise in any retrial, we address them briefly at the end of this opinion.

Background. We summarize the facts the jury could have found, reserving some details for later discussion. The defendant operated six laundromats in four different locations: one in Lawrence, two in Attleboro, one in Brockton, and two in Worcester.² The defendant was responsible for the utilities at each location. Columbia Gas (Columbia) furnished gas to the Lawrence location, the two Attleboro locations, and the Brockton location. Another company, NStar, serviced the two Worcester locations. Gas usage was measured by gas meters located at each of the six sites.

In July 2013, a grand jury returned twenty-two indictments against the defendant. As relevant here, ten of the indictments charged the defendant with willful injury to or interference with a gas meter, and six charged him with larceny over \$250. As indicated, the Commonwealth's theory was that the defendant damaged meters at each of the six laundromats, in order to decrease his gas costs. In doing so, the defendant also allegedly committed larceny, by obtaining gas without paying for it. The Commonwealth's evidence was circumstantial; it sought

² The parties stipulated at trial that "[t]he defendant operat[ed] [the] six laundromats at issue here pursuant to management agreement/leases."

to prove its case by pointing to (1) the similar and uncommon nature of the damage to the meters, (2) decreases in measured gas usage that corresponded to the time periods when the defendant was managing the locations, and (3) the defendant's motive to decrease his gas costs.

For example, witnesses testified that Columbia replaced gas meters at the defendant's Lawrence laundromat three times over the course of the defendant's operation, which lasted from February of 2009 to May of 2011. Each of the three replacements occurred because the meters were registering lower than expected gas usage. An inspection of the meter replaced in May of 2011 revealed damage to what is known as the "security wire," as well as missing and misplaced screws, and damaged or missing components within the so-called meter "head."³ There was similar testimony concerning gas usage histories and meter replacements at the defendant's other laundromats. Specifically, there was testimony establishing that the meters at each laundromat were replaced multiple times during the defendant's operation, and that the replacements generally occurred because the meters were registering low gas usage, or no gas usage at all. The evidence

³ As one of the Commonwealth's witnesses explained, gas meters have both a "body" and a "head" or "index." The "body" is what the gas flows through, and the "head" is a "measuring device" screwed to the body that "indicates the consumption of how much gas [one is] using." The "security wire" is attached to both components and is meant to "prevent tampering."

also tended to show that several of the meters removed from the defendant's other laundromats were damaged in ways similar, but not identical, to the meter from the Lawrence location. For instance, multiple meters were missing their security wires, had damaged or misplaced screws, or contained damaged components within the meter head (or were missing components altogether).⁴

To establish the above, the Commonwealth called several Columbia and NStar employees who had either inspected the laundromats and gas meters at issue or were familiar with the gas usage and billing histories of the laundromats. The witnesses included, for example, two employees who installed, inspected, and serviced gas meters. These witnesses testified principally about their own observations, including their observations concerning damage to the meters. Although the witnesses were not proffered as experts, they also testified (1) about gas meters generally, including the components of the meters and their operation, (2) that, in the witnesses' experience, the types of damage at issue were not particularly

⁴ There was also evidence that gas usage at some of the laundromats increased briefly upon replacement of some of the gas meters, before decreasing again, where examinations of the replacement meters revealed similar signs of damage.

common, and (3) that some of the damage could have resulted in erroneously low usage readings.⁵

The defendant's trial defense focused on the lack of direct proof that he had caused the damage. On cross-examination, for example, defense counsel elicited concessions that the meters were not all damaged in the same way; that some of the damage was not uncommon; and that the gas companies did not explore whether they had installed the meters correctly. The defendant's sole witness, a forensic engineer and accident reconstruction expert, also testified about potential alternative causes of the damage, including (1) debris in the meter system, (2) the meters being improperly sized for the locations, or (3) what the witness explained as "impulse loading." The defendant's expert also testified that Columbia and NStar did not investigate the possible causes that he identified, and that neither company maintained the meters according to manufacturer recommendations.

⁵ The defendant objected to the bulk of this testimony, both prior to trial and at trial, contending that the witnesses were providing improper expert testimony, and lay opinion testimony on the "ultimate issue." Although the trial judge granted the defendant's pretrial motions in limine insofar as they related to the Commonwealth's witnesses providing "expert opinion testimony" and using "such language as tampering," the judge mostly overruled the defendant's trial objections. The defendant argues these same evidentiary objections on appeal, an issue we discuss infra.

At the close of evidence, the judge instructed the jury on the elements of willful injury to or interference with a gas meter, as well as the elements of larceny. As to the gas meter injury charges, the judge gave the prima facie evidence charge that is at issue here. We have numbered the paragraphs for ease of reference:

(1) "The existence of any injury, disconnection, removal, interference with regard to a gas meter or attachment shall be prima facie evidence that a commercial or industrial business to which such gas is at the time being furnished by such meter or attachment for thirty-one days or more has, with intent to defraud, created the conditions so existing."

(2) "By 'prima facie evidence', we mean, first, that you must consider this conclusion that the business created the existing condition unless some evidence which you find believable is introduced to the contrary."

(3) "Secondly, if believable evidence to the contrary has been introduced, then you are not bound by that conclusion and you are free to make your own decision. However, you may consider such evidence, give it whatever weight you feel is appropriate in your deliberations; and in reaching a verdict, you may take it into account as you see fit, along with all the other evidence in this case, and any reasonable inferences that you draw from the evidence."

(4) "Prima facie evidence does not relieve the [C]ommonwealth of the burden to prove the charges beyond a reasonable doubt."

Defense counsel objected, arguing that the instruction

"improperly shift[ed] the burden toward the defendant." The

judge did not rule on the objection, and the jury were sent to deliberate.⁶

The jury returned guilty verdicts on all counts, and the defendant timely appealed. While that appeal was pending, the defendant filed a motion for a new trial, claiming ineffective assistance of his trial counsel, and appellate proceedings were stayed pending disposition of that motion.⁷ The defendant's motion was denied, the defendant appealed, and his two appeals were consolidated for our consideration.

Discussion. 1. Jury instruction. The defendant attacks the prima facie evidence instruction as violative of due process, claiming (1) that the connection between proof of the initial fact (damage to meters) and the facts that the jury were allowed to infer therefrom (that the defendant created the damage with the requisite intent) was not sufficiently strong, and (2) that the instruction (paragraphs 1-3) resulted in an

⁶ However, the judge added paragraph 4 of the charge, supra, in response to the defendant's prior objection to the instruction.

⁷ The motion argued, among other things, that the defendant's trial counsel rendered ineffective assistance because counsel had (unsuccessfully) sought to withdraw as the defendant's trial counsel, and in that context (1) had revealed privileged information to the trial judge, (2) had misrepresented to the trial judge that the defendant had been noncommunicative with them, and (3) had not sought the trial judge's recusal based on the "negative opinion" that the judge had allegedly developed toward the defendant.

impermissible, mandatory rebuttable presumption on an essential element of the crime.

a. Prima facie evidence designation. Although both arguments identified above have their source in the constitutional right to due process, the issues are analytically distinct. The first issue is whether the prima facie evidence instruction given in paragraph 1 of the judge's charge, standing alone, sets forth a lawful permissive inference under Massachusetts and Federal case law. Paragraph 1 is taken directly from the statute defining the crime of willful injury or interference with a gas meter. See G. L. c. 164, § 126.⁸ Such an instruction must pass a constitutional test -- the jury may not be instructed that certain facts constitute "prima facie evidence" of other facts unless there is "a strong, logical connection between the two [sets of] facts to ensure that the defendant receives the full benefit of the reasonable doubt standard." Commonwealth v. Littles, 477 Mass. 382, 386 (2017).

⁸ General Laws c. 164, § 126, provides, in relevant part:

"The existence of any of the conditions with reference to meters or attachments described in this section shall be prima facie evidence that a . . . business entity . . . to whom such gas is, at the time, being furnished . . . has, with intent to defraud, created or caused to be created . . . the condition so existing; provided, however, . . . that the prima facie evidence referred to in this paragraph shall not apply to any . . . business entity . . . furnished with gas for less than thirty-one days"

We pause to consider what is meant by an instruction that certain facts, if proved, constitute "prima facie evidence" of another fact -- usually, an element of the crime. Such an instruction was addressed most recently in Littles. "In criminal cases in the Commonwealth, when the Legislature designates 'evidence "A" [to be] prima facie evidence of fact "B," then, in the absence of competing evidence, the fact finder is permitted but not required to find "B" beyond a reasonable doubt'" (emphasis added; citation omitted). Littles, 477 Mass. at 386. "The designation of prima facie evidence in this context is 'structurally the same as' a 'permissive inference,'" which, when used properly, does not "alter the Commonwealth's substantive burden of proof" (citations omitted). Id. Here, paragraph 1 of the judge's prima facie evidence instruction told the jury that if (1) there was "any injury . . . with regard to a gas meter," then (2) this constituted "prima facie evidence" that the business to which gas was being supplied (a) created the damage with (b) the intent to defraud. Standing alone, this presented the jury with a permissive inference, thereby raising the question whether there existed a sufficiently "strong, logical connection between the two [sets of] facts." Id.

The Supreme Judicial Court and the United States Supreme Court have addressed this question on a number of occasions, with some cases holding that the inferential connection was

sufficiently strong, and others holding that it was not. See, e.g., County Court v. Allen, 442 U.S. 140, 142, 163 (1979) (statutory instruction that "presence of a firearm in an automobile [wa]s presumptive evidence of its illegal possession by all persons [in] the vehicle" was "rational" "as applied to the facts of th[e] case"); Barnes v. United States, 412 U.S. 837, 838, 845-846 (1973) (not improper to "infer[] from unexplained possession of recently stolen mail that the defendant [knew] that it was stolen," where inference was supported by "evidence," by "common sense," and by "experience"); Tot v. United States, 319 U.S. 463, 466-468 (1943) ("no reasonable ground for a[n] [inference] that [the] purchase or procurement [of a gun] was in interstate rather than in intrastate commerce"). See also Commonwealth v. Pauley, 368 Mass. 286, 291 (1975) (sufficient connection between proof of registered owner of motor vehicle and inference that such owner was operating that vehicle at time it avoided toll).

Most recently, in Littles, the Supreme Judicial Court addressed a statutorily prescribed inference, providing that (1) "the act of 'making, drawing, uttering or deliver[ing] . . . a check'" that went unpaid due to insufficient funds constituted (2) "prima facie evidence of intent to defraud and of knowledge of insufficient funds," unless (3) "the maker or drawer . . . paid the holder . . . within two days after receiving notice

that such check . . . has not been paid." Littles, 477 Mass. at 385, quoting G. L. c. 266, § 37. The Littles court concluded that there was not a sufficiently "strong[], rational connection between a defendant's failure to correct a bad check within two days of notice and the defendant's knowledge and intent," because "'the combination of natural chance and absence from the evidence of an explanation consistent with innocence' d[id] not prove the two inferred facts beyond a reasonable doubt" (citation omitted). Id. at 388. The court went on to conclude, however, that the error was harmless beyond a reasonable doubt because "[t]he overwhelming evidence demonstrated that the defendant knowingly with the intent to defraud . . . wrote checks that drew funds from a long-closed account." Id. at 391.

Focusing only on paragraph 1 of the judge's instruction, in this case the statutory "prima facie evidence" instruction the judge gave satisfied the connection required by the case law. Admittedly, the standard for evaluating the necessary connection is elusive in the cases. It has been variously described "as a 'rational connection,' a connection that is 'more likely than not,' and as a connection that leaves no 'reasonable doubt.'" Littles, 477 Mass. at 387, quoting Barnes, 412 U.S. at 841-843. But here the defendant does not make a facial challenge to the statute's designation of prima facie evidence; rather, his objection to the instruction comes in the context of the facts

of this case. See County Court, 442 U.S. at 162-163 (cases deciding "validity of permissive statutory presumptions . . . have rested on an evaluation of the presumption as applied to the [factual] record" and "[n]one suggests that a court should pass on the [facial] constitutionality of this kind of statute"). And under any of the above standards, here there is a sound connection between fact "A" -- that meters connected to the defendant's businesses suffered damage -- and facts "B" -- that the defendant created that damage with the intent to defraud. The inference itself is rational; the meters were on the property of the business and thus the business had the access (as well as the motivation to reduce costs).⁹ And here the evidence established that multiple meters attached to each of the defendant's six laundromats were damaged over the course of his operation, and that at least some of that damage was relatively rare absent some sort of intentional tampering. There was no constitutional infirmity in the instruction of paragraph 1, standing alone.

b. Permissive inference versus mandatory presumption.

That is not the end of the matter, however, because the four paragraphs of the instruction, in toto, presented the jury with

⁹ Nor should we lose sight of the fact that the inference has been directed by the Legislature. See Commonwealth v. Maloney, 447 Mass. 577, 590 (2006) ("Subject to constitutional limits . . . the Legislature is free to make such judgments").

a mandatory rebuttable presumption, not merely the permissive inference contemplated by G. L. c. 164, § 126.

The problem of the mandatory (although rebuttable) presumption has been addressed by the United States Supreme Court several times, perhaps most notably in Francis v. Franklin, 471 U.S. 307 (1985). The Court there explained that "[a] mandatory rebuttable presumption . . . relieves the State of the affirmative burden of persuasion on [a] presumed element," and thus violates due process, "by instructing the jury that it must find the presumed element unless the defendant persuades the jury not to make such a finding" (emphasis added). Id. at 317. In Francis, the challenged instruction stated:

"The acts of a person of sound mind and discretion are presumed to be the product of the person's will, but the presumption may be rebutted. A person of sound mind and discretion is presumed to intend the natural and probable consequences of his acts but the presumption may be rebutted."

Id. at 315. The Court concluded that the instruction violated the defendant's due process rights, because it "created an unconstitutional burden-shifting presumption with respect to the element of intent." Id. at 318. This because "a reasonable juror could . . . have viewed" the instruction as "requir[ing] [them] to infer intent to kill as the natural and probable consequence of the [defendant's] act of firing [a] gun unless the defendant persuaded the jury that such an inference was unwarranted" (citation omitted). Id. at 316-318.

The Supreme Judicial Court applied Francis in Commonwealth v. Medina, 430 Mass. 800 (2000). There, the court held that "[a] reasonable juror could have understood" the malice instruction at issue as requiring the jury to presume malice and improperly "shift[ing] to the defendant the burden of disproving" same. Id. at 804. The Medina court applied a "three-step framework" for analyzing errors of this kind. Commonwealth v. Harris, 101 Mass. App. Ct. 308, 314 (2022). First, we consider whether the "specific portion of the jury charge, considered in isolation, could reasonably have been understood as creating a presumption that relieves the State of its burden of persuasion on an element of an offense" (citation omitted). Harris, supra at 314.¹⁰ If so, then second, we view the instruction "'in the context of the charge as a whole' to determine whether '[o]ther instructions might explain the particular infirm language' and thereby prevent a reasonable

¹⁰ In Medina, the court confirmed that the Massachusetts standard is "whether a 'reasonable juror could have used the instruction incorrectly," derived from Francis, and explained that the standard is more favorable to a defendant than the current Federal standard of "whether there is a 'reasonable likelihood' that jurors applied the challenged instruction in a way that violates the Federal constitution" (emphasis added). Medina, 430 Mass. at 804 n.4. See Boyde v. California, 494 U.S. 370, 378-380 (1990) (recognizing departure from Francis standard). See also Estelle v. McGuire, 502 U.S. 62, 72 n.4 (1991) (describing Boyde as "considering and rejecting standards that required examination of either what a reasonable juror 'could' have done or 'would' have done").

juror from applying an unconstitutional presumption" (citation omitted). Id. Third, if the instruction fails this inquiry, we may nonetheless affirm if the "error was harmless beyond a reasonable doubt." Id.

As to the first step, here we have little doubt that a reasonable jury could have understood the prima facie evidence instruction to constitute a mandatory rebuttable presumption concerning the source of the meter damage and the defendant's intent. See Medina, 430 Mass. at 804 & n.4. The error occurs in paragraphs 2 and 3 of the judge's prima facie evidence instruction. After the judge gave the instruction from G. L. c. 164, § 126, in paragraph 1, the judge stated:

(2) "By 'prima facie evidence', we mean, first, that you must consider this conclusion that the business created the existing condition unless some evidence which you find believable is introduced to the contrary" (emphasis added).

(3) "Secondly, if believable evidence to the contrary has been introduced, then you are not bound by that conclusion and you are free to make your own decision" (emphasis added).¹¹

These second and third paragraphs were "cast in the language of command," Francis, 471 U.S. at 316, telling the jury that they "must consider th[e] conclusion that the business

¹¹ The record does not reveal the source of the instructions in paragraphs 2 and 3. Neither party requested the instructions. Although the judge provided the charge to counsel in written form before he gave it, and the defendant objected, there was little substantive discussion of paragraphs 2 and 3 during the charge conference.

created the existing condition" (emphasis added). The instruction then indicated to the jury that they were "bound" by that "conclusion" -- "that the business created the existing condition" -- and were not "free" to decide otherwise "unless some evidence which you find believable is introduced to the contrary." In toto, paragraphs 1 through 3 "indicated to a reasonable juror that the defendant bore an affirmative burden of persuasion once the State proved the underlying act giving rise to the presumption." Francis, supra at 318. The effect, then, was to "relieve[] the [Commonwealth] of the affirmative burden of persuasion" with respect to the defendant's causation of the damage with the requisite intent. Id. at 317.

We next must consider whether the remainder of the charge explained this language in a way that could have "prevent[ed] a reasonable juror from applying [the] unconstitutional presumption." Harris, 101 Mass. App. Ct. at 314. Here there were other portions of the charge that bore on the question; for example, the judge instructed the jury on the Commonwealth's burden of proof and the presumption of innocence, and that "[p]rima facie evidence does not relieve the [C]ommonwealth of the burden to prove the charges beyond a reasonable doubt." The judge also instructed that "[i]t is not up to the defendant to prove that he is innocent."

The case law, however, has not found such general instructions concerning the prosecution's burden sufficient to cure the error introduced by a mandatory rebuttable presumption. In Francis, for example, the jury also had been instructed on the State's burden of proof, see 471 U.S. at 319-320, and had specifically been instructed that there was "no burden on the defendant to prove anything," id. at 329-330 (Powell, J., dissenting). The Court nevertheless ruled that such "general instructions . . . d[id] not dissipate the error," because "[the] jury could have interpreted the two sets of instructions [together] as indicating that the presumption was a means by which proof beyond a reasonable doubt as to intent could be satisfied" (citation omitted). Id. at 319-320. And in Commonwealth v. Repoza, 400 Mass. 516, 520, cert. denied, 484 U.S. 935 (1987), the Supreme Judicial Court said that, in light of Francis, a reviewing court should be looking for "some other portion of the charge [that] not only contradicts the incorrect language but, through explanation, harmonizes it with the entire charge as well." See Harris, 101 Mass. App. Ct. at 321-322. There was no such harmonization in the charge here.

Because a reasonable juror could have understood the instruction in a constitutionally infirm manner, our final inquiry is "whether that error was harmless beyond a reasonable doubt." Medina, 430 Mass. at 802. There is a two-step

framework for addressing this question, set forth in Yates v. Evatt, 500 U.S. 391 (1991), and applied by our Supreme Judicial Court in Medina, supra. The first step is to "determine what evidence the jury actually considered" when it applied the presumption, because some "presumption[s] so narrow the jury's focus as to leave it questionable that [the jury] would look to anything but the evidence establishing the predicate fact . . . to infer the fact presumed" (citation omitted). Medina, supra at 803. Here, however, the jury's focus was not so limited; they were instructed to "consider" any evidence contradicting that the defendant caused the damage with the requisite intent. We therefore review all the evidence in evaluating whether the instruction was harmless. See Yates, supra at 404, 409.

At the second step of the harmless error analysis, we ask "whether the force of th[at] evidence . . . is so overwhelming as to leave it beyond a reasonable doubt that the verdict . . . would have been the same in the absence of the presumption." Yates, 500 U.S. at 405. We cannot so conclude under the circumstances here. First, the source of the damage was the principal contested trial issue. See, e.g., Commonwealth v. Zezima, 387 Mass. 748, 754-755 (1982) (presumption of malice not harmless because "malice was . . . the pivotal [trial] issue"); Commonwealth v. Palmer, 386 Mass. 35, 37 (1982) (similar). Second, the Commonwealth did not offer direct evidence that the

defendant caused the damage but rather asked the jury to infer same. Although the Commonwealth's evidence was certainly very powerful, nothing directly tied the defendant to the damage, leaving the defendant with a time-tested jury argument. And the defendant introduced evidence that the damage could have occurred in other ways, suggesting that the Commonwealth's witnesses had not ruled out such alternative causes. See Commonwealth v. Rembiszewski, 391 Mass. 123, 135 (1984) (constitutional error in jury charge not harmless where "Commonwealth presented a case based on circumstantial evidence which did not compel a conclusion of guilt" and "[t]he defendant presented evidence that reasonably would have permitted the [opposite] conclusion"). In light of this competing evidence, and considering that the jury could have viewed the instruction to place an affirmative burden on the defendant to disprove his involvement, we cannot conclude "that the presumption did not contribute to the verdict rendered." Yates, supra.

Based on the foregoing, the defendant's convictions of willful injury to or interference with a gas meter cannot stand. Moreover, given the nature of the erroneous instruction here, we are constrained to conclude that the larceny convictions also must be vacated. Cf. Palmer, 386 Mass. at 38 (concluding similarly). One of the elements of larceny is intent -- that is, "inten[t] to deprive the owner of the property permanently."

Here, the jury were charged that they must conclude that the defendant damaged the meters "with intent to defraud," "unless some evidence which you find believable is introduced to the contrary." Inasmuch as the larceny charges arose out of the same alleged conduct -- that is, damaging the meters so as to obtain gas without paying for it -- we cannot say that the improper presumption did not impact the larceny verdicts. Accordingly, we vacate the defendant's convictions on both sets of charges, and remand the matter to the trial court.¹²

2. New trial issues. Resolving the case as we do, we touch briefly on issues that may arise in the event of a new trial; specifically, (1) whether the Commonwealth's lay witnesses were improperly allowed to testify about "the operation of, and damage to, the gas meters," and (2) whether those witnesses offered lay opinion testimony on the "ultimate issue" that the meters had been "tampered" with.¹³ On these points, we note the following principles.

¹² We decline the defendant's request to reverse his convictions, rather than to vacate the convictions and remand the matter for a new trial. The defendant has not challenged the sufficiency of the evidence, and we have not reversed on that basis. See Commonwealth v. Sanchez, 485 Mass. 491, 507 & n.9 (2020). Where the error was that the jury was improperly instructed on the law, a remand is appropriate. See id. at 506-507.

¹³ Because we do not anticipate that the ineffective assistance of counsel issues that the defendant raises will arise on remand, we do not address them. See note 7, supra.

First, the bulk of the testimony from the gas company employees consisted of their own observations, and witnesses can of course testify about observed facts. See Commonwealth v. Huang, 489 Mass. 162, 176 (2022). Second, provided a proper foundation is established, a witness can testify based on their experience with a machine or with technology, including what they have observed about how a machine is used or operates. The technical nature of an item is not the touchstone for whether expert testimony is necessary. See, e.g., Commonwealth v. Bundy, 465 Mass. 538, 546-547 (2013) (expert testimony concerning video-game system unnecessary). Instead, expert testimony is ordinarily required when a witness offers an opinion based on "scientific, technical, or other specialized knowledge" (citation omitted), Commonwealth v. Gerhardt, 477 Mass. 775, 785 (2017), or when the "subject of the testimony 'is beyond the common knowledge or understanding of the lay juror'" (citation omitted), Bundy, supra at 546. See Onofrio v. Department of Mental Health, 408 Mass. 605, 613 (1990) ("expert testimony is not a prerequisite to a finding about matters that are within ordinary human experience"). Third, "[a]n opinion is not objectionable just because it embraces an ultimate issue," Mass. G. Evid. § 704 (2023), as long as the testimony does not "provid[e] an opinion as to guilt or innocence," Commonwealth v. Waller, 486 Mass. 72, 74 n.2 (2020).

With these principles in mind, it is nonetheless true that some questions that the Commonwealth posed appeared to call for opinions based upon technical or specialized knowledge. The following two are examples:

Q.: "Going back to your visits to the defendant's laundromats in May 2011, based on what you saw during those visits, did you see anything on either meter that would indicate possible tampering with those meters?"

". . ."

Q.: "What if anything happens to a[] [meter] index when [its] magnet shaft drops down and disengages?"

". . ."

A.: "It can cause the gears to become disengaged, resulting in less [gas] usage shown on the index."

These questions appear to have crossed the line into calling for expert opinion. To the extent the Commonwealth attempts to elicit similar testimony at any new trial, it might avoid these issues by seeking to qualify its witnesses as experts.

Conclusion. The judgments are vacated, and the verdicts are set aside. The matter is remanded to the Superior Court for such further proceedings as may be appropriate.

So ordered.